

R E M A R K S

This is in response to the Office Action that was mailed on September 13, 2006. Applicants gratefully acknowledge the Examiner's indication of allowable subject matter in this application (with claim 24 being allowed). Claims 13, 15, and 20 are amended to refer to venting collecting channels, based upon such disclosure as that in the paragraph bridging pages 9-10 of the specification ("venting openings of the reaction chambers are followed by connection channels entering a venting collecting channel"). This is a non-narrowing clarifying amendment. New claim 43 is added, corresponding to claim 11 and amended in accordance with the disclosure to require "a plurality of reaction chambers" instead of "at least one reaction chamber". No new matter is introduced by this Amendment. Claims 11-20, 24, and 43 are pending in the application.

Anticipation

Claims 11-20 were rejected under 35 U.S.C. §102(b) as being anticipated by US 4,963,498 to Hillman et al (Hillman). The rejection is respectfully traversed.

A significant feature of the present invention – required by all of the claims herein – is that the reaction chamber is filled by using capillary forces exclusively ("each distributor channel and each inflow channel being dimensioned to wherein ... surfaces in the entrance region of the inflow channel ... are configured as a means for generating a capillary force causing the sample liquid to flow from the inflow channel into the reaction chamber

exclusively by capillary force”).

In contrast, Hill discloses the use of gravitational as well as capillary forces in the capillary pathway connecting the entry port and the vent, which capillary pathway also comprises a reagent therein. Accordingly, with reference to Figure 2a of Hillman, to which the Examiner has referred, and to Figure 2b (see also the accompanying text from line 38 of column 19 to line 32 of column 20), the elements 58, 66, and 60 form the capillary pathway between the entry port 64 and the vent 72 with the reagents 68 and 70 coating chambers 58 and 60 of the capillary pathway. Again, the flow of the sample liquid through this capillary pathway results also from gravitational forces. This is true in particular for filling chambers 58, and 60, which have a much larger cross-section than entry port 64 and channel 66 through which the sample liquid flows, respectively before reaching the respective chamber. Thus, since gravitational forces are undeniably used in the Hillman apparatus, the presently claimed apparatus is clearly not anticipated by the Hillman disclosure.

Furthermore, Hillman teaches *one* entry port per capillary pathway, while new claim 43 herein recites a sample receiving chamber, a distribution channel extending therefrom, and a plurality of reaction chamber and flow channels branching off the distribution channel and terminating at the respective reaction chambers. This liquid sample manifold system of the present invention using capillary forces in the channels and, in particular – using in each of the plurality of reaction chambers means for generating capillary forces for causing the sample liquid to flow from a respective flow channel to the associated reaction chamber for filling the same exclusively by capillary forces – is neither taught nor suggested by Hillman. Again, as can be

seen from the description and drawings in Hillman, showing widened capillary pathway chambers 58 and 60, gravitational forces necessarily act in order to fill the Hillman widened chambers.

Accordingly, for the reasons explained above, claims 11-20 and 43 are not anticipated by the Hillman disclosure (nor are claims 11-20 and 43 obvious thereover). Withdrawal of the rejection of record is respectfully requested.

Double patenting

Claims 11-20 were rejected on the ground of obviousness-type double patenting over claims 1-29 of US 7,094,354 B2. In stating the rationale for this rejection, the Examiner referred to the claims herein as requiring “at least one” – and thus only one – of a sample receiving chamber, a distributor channel, a reaction chamber, and a vent. New claim 43 requires a plurality of reaction chambers – that is, more than one is required. Accordingly, the double patenting rejection clearly does not apply to new claim 43. With respect to claims 11-20, each of these claims requires that the reaction chamber is filled by using capillary forces exclusively. The Examiner’s statement of the double patenting rejection does not address this significant feature of the present invention. Accordingly, the obviousness-type double patenting rejection of record is not sustainable, and should be withdrawn.

Conclusion

Withdrawal of all rejections of record – that is, the double patenting rejection and the anticipation rejection – is in order and is earnestly solicited.


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If there are any questions concerning the present application, the Examiner is respectfully requested to contact Richard Gallagher (Reg. No. 28,781) at (703) 205-8008.

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